

REMARKS

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I. Introduction

In response to the Office Action dated April 5, 2007, claim 13 has been amended and claims 17-19 have been added. Claims 1-19 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Claim Amendments

Applicant's attorney has made amendments to the claims as indicated above. The Applicant is not conceding in this application that those claims are not patentable over the art cited by the Examiner, as the present claim amendments and cancellations are only for clarifying the language of the claims and facilitating expeditious prosecution of the allowable subject matter noted by the examiner. Applicants respectfully reserve the right to pursue these and other claims in one or more continuations and/or divisional patent applications.

III. Office Action Objections

In paragraph 1, the Office Action appears to object to claim 13 because it does not pass the "three-prong test" used to determine invocation of 35 U.S.C. § 112, 6th paragraph. The Applicant respectfully traverses.

According to the Office Action, claim 13 meets the first prong of the three-prong test, but does not meet the remaining two prongs because "no other specific structural limitations are disclosed in the specification." However, MPEP § 2181 defines the three-prong test as follows:

- (A) the claim limitations must use the phrase "means for" or "step for,"
- (B) the "means for" or "step for" must be modified by functional language; and
- (C) the phrase "means for" or "step for" must not be modified by sufficient structure, material, or acts for achieving the specified function.

Importantly, neither prong (B) or (C) refers to a requirement to provide more than one "specific structural limitation" in the specification. Indeed, prongs (B) and (C) refer only to requirements placed on the claim, not the specification. Accordingly, the Applicant respectfully traverses this statement.

In paragraph 2, the Office Action objects to the Abstract because it uses acronyms. The Applicants thank the Examiner for noting this error ... a replacement abstract is enclosed.

IV. The Cited References and the Subject Invention

A. The Szymanski Reference

U.S. Patent No. 6,148,081, issued November 14, 2000 to Szymanski discloses a security model for interactive television applications. The system and method is implemented in an interactive television system and restricting or controlling the access rights of interactive television applications and carousels. The system broadcasts modules from a broadcast station to a plurality of receiving stations, which execute applications containing the modules. In one embodiment, the applications utilize a credential consisting of a producer identification number (ID) and an application ID for each of the grantor and grantee applications, an expiration date, a set of permission data, a producer certificate and a signature. An application requesting access and a carousel granting access may be identified by respective producer and application IDs. The credential utilizes public key encryption to ensure the integrity of the credential. The producer and application IDs may be replaced with wildcards so that rights may be granted to a group of producers or applications.

B. The Liao Reference

The document "The Split and Merge Protocol for Interactive Video-on-Demand" authored by Wanjiun Liao and Victor O.K. Li describes a system wherein when a user selects VCR-like user functions from a batch video stream, the user is temporarily assigned to a new video stream that the user can used to perform any desired interactions. When the user is done, they are merged back into the nearest ongoing video stream.

C. The Spies Reference

U.S. Patent No. 6,055,314, issued April 25, 2000 to Spies discloses a system and method for secure purchase and delivery of video content programs. The system and method allows secure purchase and delivery of video content programs over various distribution media, including distribution networks and digital video disks, includes an integrated circuit card (e.g., a smart card, PCMCIA card) which is configured to store decryption capabilities for related video programs. The decryption capabilities are initially kept in a secure store at a video merchant. When a purchaser orders a particular video program, the decryption capabilities for that program are downloaded to the IC card, either at the merchant premises or over a distribution network. The video content program is distributed in encrypted format via the distribution media to the purchaser. The IC card uses the decryption capabilities to at least partly decrypt the video content program without exposing the decryption capabilities.

D. The Ma Reference

"Multicast Video-on-Demand Services" by Huadong Ma and Kang G. Shin discusses recent progress in multicast VOD systems.

V. Office Action Prior Art Rejections

In paragraphs (3)-(4), the Office Action rejected claims 1-12 under 35 U.S.C. § 103(a) as unpatentable over Szymanski, U.S. Patent No. 6,148,081 (Szymanski) in view of Liao et al., The Split and Merge Protocol for Interactive Video-on-Demand (Liao) and in further view of Spies, U.S. Patent No. 6,055,314 (Spies). The Applicants traverse these rejections.

With Respect to Claim 1: Claim 1 recites:

A method of providing a video program in response to a demand by a subscriber, wherein the video program is repeatedly transmitted on one of a plurality of channels, each repeated transmission separated from a previous transmission by a predetermined period of time, the method comprising the steps of:
delivering a first unencrypted portion of at least one video program available for viewing on demand;
storing the first unencrypted portion of the at least one video program as unencrypted data on a Digital Video Recorder (DVR);
offering the video program for purchase by the subscriber;
accepting a subscriber demand to purchase the complete video program;
retrieving the stored first unencrypted portion of the at least one video program after accepting a subscriber demand to purchase the complete video program;

authorizing capture and decryption of a remaining portion of purchased video program; switching from the stored first unencrypted portion of the at least one video program to the remaining portion of the purchased video program.

According to the Office Action, Szymanski discloses the step of "delivering a first unencrypted portion of at least one video program available for viewing on demand" because it recites "The interactive television signal includes an interactive portion consisting of an application code or control information, as well as an audio-video portion consisting of a television program." However, nothing in delivering a first unencrypted portion of at least one video program available for viewing on demand discloses that the "interactive portion" is "a video program available for viewing on demand". Indeed, Szymanski discloses nothing at all about video on demand ... it is directed to interactive television.

The Office Action also indicates that Szymanski discloses the step of "storing the first unencrypted portion of the at least one video program as unencrypted data on a Digital Video Recorder (VCR)" because it discloses "The set-top box receives the signal transmitted by the broadcast server provider, separates the interactive portion from the audio-video portion and decompresses the respective portions of the signal." However, Szymanski does not disclose storing anything in a DVR, as recited in claim 1.

The Office Action also indicates that Szymanski discloses the step of "offering the video program for purchase by the subscriber" because it recites "the carousel may comprise an electronic commerce application which allows interactive television users to make purchases via credit card transactions." However, this does not disclose offering the video program (recited in the first clause) for purchase by the subscriber, but rather allows users to make other purchases with an electronic commerce application. In the system disclosed by Szymanski, it would plainly make no sense to offer a video program for purchase when it has already been received.

The Office Action indicates that Szymanski discloses the step of "accepting a subscriber demand to purchase the complete video program" by disclosing "The credential can be created by secure means so that it can be determined at run time whether the credential was in fact created by the producer of the credit card application." Again, the cited portion of the Szymanski reference does not appear to disclose anything even remotely related to a subscriber demand to purchase "the complete video program." Szymanski assumes that the user has already access to the video program ... the other

"portion" referred to in Szymanski is not the remainder of the media program, but rather, a portion that is used to support interactive TV purchases.

The Office Action indicates that Liao discloses "retrieving the stored first unencrypted portion of the at least one video program after accepting a subscriber demand to purchase the complete video program" by reciting "With VoD services, customers may select programs from massive, remote video archives, view them when they wish, and interact with the programs using VCR-like functions, such as fast forward and rewind." However, claim 1 recites retrieving "the stored first unencrypted portion of the video program" ... that which was delivered in the first clause. The data received in the Liao reference is not locally stored instead, it is retrieved from a video server.

The Office Action indicates that Liao discloses "switching from the stored unencrypted portion of the at least one video program to the remaining portion of the purchased video program" by reciting "When a user is in a batch initiates a user interaction, the protocol splits off the interactive user from the original batch and temporarily assigns that user to a new video stream." This is also incorrect. Liao teaches switching from a batched video stream to a new video stream upon user interaction. Claim 1 recites a system in which the user *starts* by playing the program locally (certainly non-batch) and switches to what might be analyzed as a batch video stream ... not the other way around.

The Applicants also do not agree with the cited motivation for modifying Szymanski as described in Liao. First, Szymanski can "play the program content as requested by the subscriber" without any modification. Second, even when combined, neither discloses the notion of *apriori* storage of an unencrypted program, offering that program for purchase by the subscriber and retrieving the unencrypted portion of the video program in response to a subscriber demand.

The Office Action continues by indicating that Spies discloses "authorizing capture and decryption of a remaining portion of the video program" by reciting "The video content provider 22 maintains a video program storage 30 which keeps the video content programs and program keys database 32 which stores cryptographic keys that correspond to associated video content programs. There is one key for each video content program. Even combined with Szymanski and Liao, Spies does not disclose the notion of a storing an unencrypted video portion on a DVR and authorizing the authorizing the capture and decryption of the remaining (decrypted) portion upon user command.

Claim 5 is patentable for the same reasons.

In paragraph (5), the Office Action rejected claims 13 and 16 under 35 U.S.C. §103(a) as being unpatentable over Szymanski in view of Liao and in further view of Ma et al., Multicast Video on Demand Services (Ma). Applicant respectfully traverses these rejections.

With Respect to Claim 13: Claim 13 recites:

*An apparatus for providing a program in response to a subscriber demand comprising:
a digital video recorder being an integrated receiver/decoder having digital video recording capabilities;
a first unencrypted portion of at least one program stored on the digital video recorder;
an offer to purchase at least one program;
means for accepting the offer to purchase the at least one program;
means for retrieving the first unencrypted portion from storage while retrieving the remaining portion of the at least one program on the digital video recorder;
means for splicing the first unencrypted portion of the at least one program with the remaining portion of the program to define a complete program;
the complete program stored on the digital video recorder.*

According to the Office Action Szymanski discloses “a first unencrypted portion of at least one program stored on the digital video recorder” by reciting “The set-top box receives the signal transmitted by the broadcast server provider, separates the interactive portion from the audio-video portion and decompresses the respective portions of the signal.” However, Szymanski does not disclose storing anything in a DVR, as recited in claim 13.

Similarly, as discussed with respect to claim 1, Szymanski does not disclose a “an offer to purchase at least one program” but instead the purchase of other e-commerce items.

Szymanski also fails to disclose a means for splicing a first encrypted portion of the at least one program with the remaining portion of the program to define a complete program. The cited portion of Szymanski refers only to the reconstruction of television programs and interactive applications from the received packetized signal. This has nothing to do with “splicing a first encrypted portion of the at least one program with the remaining portion of the program to define a complete program.”

The Office Action acknowledges that the Szymanski reference does not disclose “means for retrieving the first unencrypted portion from storage while retrieving a remaining portion of the program on the digital video recorder”, but asserts that Liao does because it recites “With VoD

services, customers may select programs for massive, remove video archives, view them when they wish, and interact with the programs using VCR-like functions, such as fast forward and rewind." However, Liao does not disclose a digital video recorder at all, and the foregoing passage does not disclose "retrieving the first unencrypted portion from storage while retrieving a remaining portion of the program on the digital video recorder" as claimed. Instead, it merely discloses a VoD service obtained by retrieving programs from remote video archives.

VI. Dependent Claims

Dependent claims 2-4, 6-12, and 14-16 incorporate the limitations of their related independent claims, and are therefore patentable on this basis. In addition, these claims recite novel elements even more remote from the cited references. Accordingly, the Applicant respectfully requests that these claims be allowed as well.

VII. New Claims

New claims 17-19 are presented for the first time in this Amendment. For the reasons described above, new claims 17-19 are patentable over the prior art of record. Further, claims 17-19 recite features not disclosed in any of the cited references. For example, claim 18 recites that only the remaining portion of the media program is repeatedly broadcast (reducing bandwidth requirements), and claim 19 recites that the entire media program is repeatedly broadcast (allowing NVOD use with set top boxes without DVR capability). The Applicant respectfully requests the allowance of these claims as well.

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In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicant's undersigned attorney.

Respectfully submitted,

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